BRAZOSPORT COLLEGE

SYLLABUS for **Fall 2015**

General Biology 1 Lecture: BIOL 1306

Instructor: Kevin Spring, Ph.D.
Email: kevinjspring@gmail.com
Office: Sadler Building 225
Office Hours: M 3:00 – 4:30 &
W 3:30 – 4:15
or by appointment
Alt. phone: 230-3225 (Mrs. Debbie Duncan – Admin Office Specialist – Sadler 225K)

Course Description: A survey of the fundamental principles of living organisms including physical and chemical properties of life, and cellular organization and function. Concepts of cell reproduction, heredity, genetics, and the scientific method are also included. An emphasis is placed on DNA technology, genetic engineering and ethical concerns surrounding current biomedical issues

Course Textbook: *Biology*, 10th edition; Campbell *et al*., Pearson Publishing
ISBN 13: **9780321775658**

- 9th edition is acceptable; some discrepancies in lecture slide figures and page numbers
- Required course materials are available at the Brazosport College bookstore, on campus or online at http://www.brazosport.edu/bookstore. A student of this institution is **not under any obligation** to purchase a textbook from the college bookstore. The same textbook is/may also be available from an independent retailer, including an online retailer.

Course Goals:

1. Students will become familiar with basic biological principles, theories, and terminology and become aware of the vibrant living world in which they live through lectures, discussions and coordinated laboratory exercises.
2. Students will be capable of distinguishing differences between qualitative and quantitative approaches in the Scientific Method, how these approaches differ from other means of inquiry, and will learn how Biologists communicate their findings.
3. Students will demonstrate knowledge of the chemical basis of life, basic cellular organization, and the critical nature of biological membranes, intracellular and intercellular communication, cellular energetics, chromosomal maintenance, and gene expression and regulation mechanisms through exams and assignments.
4. Students will exhibit understanding of the genetic mechanisms underlying patterns of inheritance and phenotypic adaptation within the context of Darwinian evolution and speciation through exams and assignments.

5. Students will understand the major successes and yet unsolved questions facing modern Biology, including issues that touch upon ethics and public health policy.
6. Students will develop an awareness of the interdependence of biology and biomedical technology, as well as their influence on and contribution to modern culture.
7. The course design also provides students majoring in a science with information that serves as a basis for further study in biology.

Keys to Success:

1. Join a **study group** or go to **S.I. sessions**.
2. Plan a specific study time each day/week & **stick to it**: **9-12 hr/week.**
3. Read the chapter material (all or partial) **before** class.
4. Ask lots of **questions in class**.
5. Review lecture slides and notes after each class.
6. **Don't wait** until the day before to study for a test. Doesn't work in College.
7. Don't let a low score discourage you. Patience & hard work pays off.

Grading: Your course grade will be determined by adding the points earned in lecture.

500 points maximum:
400 points from **Exams 1, 2, & 3**
100 points from **Comprehensive Final**
Final is **mandatory**
100 points from two **Literature Reviews**

EXTRA CREDIT: *There will be* ***NO EXTRA CREDIT*** *offered during the semester.*

A student that completes all four exams and the final exam will be allowed to drop the lowest exam score from the first four exams (excluding the final exam). **NO make-up exams will be given**. **Any student that is late 10 minutes or more for an exam will not be able to take that exam**.

Grading Scale: Points from lecture and lab will be totaled and your grade determined as follows:

% of points earned	Letter grade
90-100%	**A**
80-89%	**B**
70-79%	**C**
60-69%	**D**
Less than 60%	**F**

Lecture Mechanics: Please read assigned chapters ***before*** or ***as close as possible after*** class. This will ***greatly enhance*** your understanding of lectures. Participation in lecture in partner discussion and by asking questions is ***highly encouraged***.

EXAMS: Semester exams will consist of scantron multiple-choice & true/false, as well as a visual matching section, fill-in-the-blank diagrams, short answer, and 2 essays at my discretion. The **Final** exam is a *mandatory*, *comprehensive* test covering a random selection of all scantron questions from all semester exams. Exam study guides will be handed out at my discretion. All information needed for the exams can be found in your lecture notes and in the textbook. ***Do not ask your instructor what will be on the Exams or for information about how the material will appear in question form, because academic honesty dictates that I cannot and will not tell you in advance.***

LITERATURE REVIEW: Writing assignments, worth 100 points, will occur during the semester. Your writing assignments will be based on reading, summarizing and analyzing, in a clear and concise manner current, up-to-date scientific review articles about research trends in Biology. *You'll turn in your assignment by emailing it to the instructor.* The writing assignments must be turned in on time, without exception, for full credit. There is a *10% reduction in your total score* for every 1 hour the assignment is late. Writing assignments will not be accepted **after 2 school days** past the due date, and a grade of zero will then be assigned.

Electronic devices policy: **You may NOT use** items of these types during class: Phones, pagers, personal MP3 players, portable DVD players, portable gaming devices, or any other type of portable entertainment device. Please turn off all devices or, at the very least, set them to vibrate. *If your job/work/family situation **requires** you to keep a cell phone/pager with you on at all times,* be sure to 1) talk with me during the 1st week of class, 2) send me an email stating why for record-keeping purposes, and 3) take any calls out in the hallway. You may use a laptop/tablet to take notes, however this privilege will be revoked if you are found using your device for **any** other purpose during my lecture **even once**. Feel free to utilize digital recording for lecture.

Participation policy: All students are expected to **fully participate** in this course every day we meet. If you have an immediate family or personal emergency which may result in not being present, **contact me in advance or as soon as possible** so that options may be discussed. **Plan to be in your seat five (5) minutes prior to class.** I reserve judgment on deciding the seating arrangement in lecture or lab.

Withdrawal policy: The Brazosport College Biology Department and I believe attendance is **critical** for the **comprehension** of material. However, my policy is not to decide whether to withdraw you from my course for lack of attendance. Each student must make the decision to withdraw themselves before the withdraw deadline.

Authority clause and Behavior policy: The College and your instructor will assume that all of you know how to conduct yourself in a respectful, polite, and college-level appropriate behavioral manner. However, **the lecture classroom is not a democracy - - it is instead an autocracy.** By rank and position, your instructor **retains all control** over maintaining the classroom learning environment. Thus, **disruptive behavior *won't*** be tolerated in the slightest during lecture or lab. This includes, but is not limited to: excessive or loud conversations, inappropriate gestures, inappropriate or insulting conversational topics, bullying or demeaning other students or your instructor, challenging the authority of your instructor on grades, behavior, decisions, classroom and lab activities, or anything else that your instructor deems disruptive and distracting to the learning environment. Habitual or repeated disruptive behavior of any type **WILL** result in withdrawal from the course at my discretion. In addition, habitual or repeated **tardiness** to class or lab will result in the **loss of Course points** at my discretion, and **may lead to withdrawal** from the course at my discretion.

Academic honesty policy: The College and your instructor will assume that students eligible to perform at the college level are familiar with, and will abide by, the standard rules governing legal and appropriate conduct, especially with regard to academic honesty. Please refer to the BC Student Guide & Calendar for more information on Academic Honesty, which is available on the College homepage (mouse over "Students" tab, click on "Catalog & Schedule", click on "Student Guide & Calendar", click on "2014-2015 Student Guide & Calendar"). Briefly, **the central principle of academic honesty is that all work presented for a grade by you is yours only and yours alone**. Each student must do their **own work** (*meaning not written by someone else or copied from another individual*) on lecture exams and writing assignments. Academic dishonesty therefore includes, but is not limited to: cheating in any way, plagiarism of published or online material of any kind, and collusion (allowing or enabling a fellow student to cheat). **Let me be crystal clear: Cheating is *NOT TOLERATED*, under any context, in lecture or in lab. If you are caught cheating, plagiarizing, colluding to cheat you will be referred to the Dean of Student Services for review and assignment of punishment, which can include an F on the assignment/Exam in question, an F in the course, or (in rare cases or repetitive academic dishonesty) suspension.** If you are having trouble understanding any concepts or assignments please **come to talk to me *before* your resort to cheating or colluding**.

Student services provided by Brazosport College: To contact the Math/Science Division call (979) 230-3225. Information about the College Library is available on the website or by calling (979) 230-3310. The Student Services area provides the following services: Counseling and Advising at (979) 230-3040; Financial Aid at (979) 230-3294; and Student Activities at (979) 230-3355. Tutoring for Math, Reading, Writing, Environmental Science, Chemistry, and other subjects is available in the Student Success Center; please call (979) 230-3527 for more information. Located within the Student Success Center (second floor of the main building above the counseling and registration office) is the BC Writing Center. The Writing Center provides drop-in tutoring Monday – Thursday 9 am – 8 pm and Friday 9 am – noon. However, **there are only 2-3 tutors available on any given day, thus you need to plan on going there 4-5 days prior to**

the assignment due date. Online writing tutor sessions are also offered; an instructional video on this process will be posted on the course website. The Writing Center can assist with brainstorming, organizing and developing paragraphs, understanding professors' directions, learning about APA or other writing styles, learning how to avoid plagiarism, improving mechanics, using Microsoft Word, becoming a stronger writer, and much more. **To schedule an Exam**, please contact the Testing Services department (formerly the LAC) at (979) 230-3253. Testing schedules are limited so please sign up early. Learning Services is open 7:30 a.m. – 9:30 p.m. Monday-Thursday & 7:30 a.m. – Noon on Fridays, and is located on the 1st floor of the Main building next to Library.

Students with disabilities: Brazosport College is committed to providing equal education opportunities to every student. BC offers services for individuals with special needs and capabilities including counseling, tutoring, equipment, and software to assist students with special needs. Please contact Phil Robertson, Special Populations Counselor, at (979) 230-3236 for further information.

Availability of your Instructor on Fridays, Weekends, or Holidays: Unless indicated otherwise by your instructor during class, your instructor is not available by phone or email on Weekends – or Holidays. Expect a **email reply** from your instructor *ONLY* during standard business hours (9 - 5pm), Office hours, or hours listed on his Semester schedule posted for each class he teaches on the next business day.

Schedule: General Biology I Lecture FALL 2015

Class Day	Lecture Topic(s)	Reading & Assignments
August 24	Course Introduction / What is Life / Scientific Method	Syllabus
August 26	Chemical Context of Life / Water & Life	Chap 2 / 3 **Last Page Syllabus**
August 31	Water & Life	Chap 3
September 2	Carbon and the Molecular Diversity of Life Large Biological Molecule	Chap 4 Chap 5
BC Closed September 7th in observance of Labor Day		
September 9	Large Biological Molecules	Chap 5
September 14	**EXAM # 1 (Ch 2 - 5)**	
September 16	A Tour of the Cell	Chap 6
September 21	Membrane Structure and Function	Chap 7
September 23	Membrane Structure and Function	Chap 7
September 28	Cellular Respiration & Fermentation	Chap 9
September 30	Cellular Respiration & Fermentation / Photosynthesis	Chap 9 / 10 **Lit Review # 1**
October 5	Photosynthesis	Chap 10
October 7	Cell Communications	Chap 11
October 12	**EXAM # 2 (Ch 6 – 7, 9 - 11)**	
October 14	The Cell Cycle	Chap 12
October 19	Meiosis & Sexual Life Cycles	Chap 13
October 21	Mendel and the Gene Idea	Chap 14
Last day to withdraw from courses is October 30th		
October 26	Chromosomal Basis of Inheritance	Chap 15
October 28	Chromosomal Basis of Inheritance	Chap 15
November 2	**EXAM # 3 (Ch 12 - 15)**	
November 4	The Molecular Basis of Inheritance	Chap 16
November 9	The Molecular Basis of Inheritance	Chap 16 **Lit Review # 2**
November 11	Gene Expression	Chap 17
November 16	Gene Expression / Regulation of Gene Expression	Chap 17 / 18
November 18	Regulation of Gene Expression	Chap 18
November 23	DNA Tools & Biotechnology	Chap 20
BC Closed November 25th in observance of Thanksgiving		
November 30	**EXAM # 4 (Ch 16 – 18, 20)**	
December 2	OPTIONAL FINAL REVIEW SESSION	
December 7	FINAL EXAM 5:00 – 7:00 pm	

Grade Tracking

LECTURE EXAMS (out of 500 points):

Exam # 1 (100 points) _____
Exam # 2 (100 points) _____
Exam # 3 (100 points) _____
Exam # 4 (100 points) _____
Drop the lowest Exam grade above
Final (100 points) _____
A. TOTAL _____ / 400

LECTURE ASSIGNMENTS (out of 400 points):

Lit Review 1 (50 points) _____
Lit Review 2 (50 points) _____
B. TOTAL _____ / 100

FIGURING MY GRADE AT ANY TIME IN THE SEMESTER:

1. Add the *points you've received* thus far.
2. Divide by the *total points available* thus far.
3. Multiple by 100 to get your current percentage

FIGURING MY COURSE GRADE:

1. Add Total lines **A & B** _____ / 500
2. Divide by 5 _____
3. Compare to grading scale to determine your grade

Percentage of points earned	Letter grade
90-100%	**A**
80-89%	**B**
70-79%	**C**
60-69%	**D**
Less than 60%	**F**

Please read the syllabus carefully and then complete the following:

Name: _____

Current Email address (the one you actually check): _____
(I need this to communicate with you and the class as a whole until a course website is setup)

Please answer the following questions

1. How many Biology-related courses have you had previous to this one? What did you like or dislike about them?

_____

_____

_____

_____

2. What is your "comfort level" for this class? _____

_____

_____

3. Do you have any concerns about this class or what might be expected of you? _____

_____

_____

4. What do you think will be the most difficult part of this class for you? _____

_____

_____

_____

5. Is there anything else that you think is important for me to know about you? _____

_____

_____

_____

Please sign and date indicating that you have read the syllabus and that you understand the requirements for Biology 1306

_____

Name Date